

SAFETY DATA SHEET

BIODIESEL 5%



I. PRODUCT AND COMPANY IDENTIFICATION

Product name : Bio Diesel
Trade name : Bio Diesel B5
Other name : Diesel fuel containing 5% Fatty Acid Methyl Esters
Supplier's name, address : Vietnam National Petroleum Group
N°1- Kham Thien Str.- Van Mieu Quoc Tu Giam Ward.-
Hanoi
Emergency contact : Vietnam National Petroleum Group
N°1- Kham Thien Str.- Van Mieu Quoc Tu Giam Ward.-
Hanoi
Tel. 024 3851 2603 Fax. 024 3851 9203
CAS number : Not available
UN number : 1202
EC number : Not available
Intended use : Used as fuel for diesel engines .

II. HAZARDS IDENTIFICATION

National Fire Protection Association (NFPA)

Health hazard: 1
Flammable hazard: 2
Reactivity: 0



GHS Classification

Flammable liquid : Category 3
Skin irritation : Category 2
Acute toxic (respiratory) : Category 4
Harmful to respiratory system : Category 1
Carcinogenicity : Category 2
Specific target organ toxicity (repeated exposure) : Category 2
Chronic toxic to aquatic life : Category 2

Pictogram



Signal word : Danger

Hazard statements

H226 : Flammable liquid and vapour.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H336 : May cause drowsiness or dizziness.
H319 : Causes serious eye irritation.
H350 : May cause cancer.
H373 : May cause damage to organs through prolonged or repeated exposure.
H411 : Toxic to aquatic life with long lasting effects.

Prevention precautionary statements

P240 : Ground and bond container and receiving equipment.
P241 : Use electrical, ventilation, and lighting equipment that complies with explosion-proof standards.
P242 : Use non-sparking tools.
P243 : Take action to prevent static discharges.
P261 : Avoid inhalation of the substance in the form of dust, gas, or vapor.
P264 : Wash hands thoroughly after handling.
P271 : Use only outdoors or in a well-ventilated area.
P273 : Avoid release to the environment.
P280 : Wear protective gloves/protective clothing/eye protection/face protection.

Response precautionary statements

P302 + P352 : If on skin: Wash the affected area thoroughly with plenty of water and soap.
P303 + P361 + P353 : If on skin (or hair): Remove immediately all contaminated clothing. Rinse skin thoroughly with plenty of water and soap.
P304 + P340 : If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P331 : Do not induce vomiting under any circumstances.
P362 + P364 : Take off contaminated clothing and wash it before reuse.
P370 + P378 : In case of fire: Use appropriate firefighting equipment to extinguish.
P391 : Collect spillage.

Storage precautionary statements

P403 + P235 : Store in a well-ventilated place. Keep cool.
P405 : Store locked up.

Disposal precautionary statement

P501 : Dispose of contents/container in accordance with local/regional/national/international regulations.

III. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical name	CAS number	Content
Diesel Fuel Oil	68476-34-6	95 % volume
Fatty Acid Methyl Esters (FAME)		≤ 5 % volume
Sulfur	7704-34-9	≤ 500 mg/kg

IV. FIRST AID MEASURES

Eye contact : Move the victim to a safe, well-ventilated area. Remove contact lenses if possible. Rinse eyes thoroughly with running water for at least 15 minutes while keeping eyelids open. Seek medical assistance promptly.

Skin contact : Remove contaminated shoes and clothing. Wash the affected skin area thoroughly with soap and water. Contaminated clothing and shoes should be washed before reuse. In cases of allergic reaction or severe skin damage, seek emergency medical attention immediately.

Inhalation contact : Remove victim to fresh air, keep comfortable breathing. Loosen up the neck, tie or belt. If not breathing, or unusual breathing, immediately take the artificial respiration (shall be implemented by trained staff of first aid). Get immediate medical attention.

Ingestion contact : Thoroughly rinse mouth by water. Do not induce vomiting, it might cause the complication of lung unless

have the instruction of medical. Do not put anything to mouth while unconscious statement. Get immediate medical attention.

Note : The rescuer may be at risk when performing artificial respiration. Seek medical assistance immediately.

V. FIRE FIGHTING MEASURES

Toxic chemical might be produced

: CO_x, SO_x, NO_x, Hydrocacbon

Suitable fire fighting media

: Use approved fire extinguishers (e.g., CO₂), dry sand, or water-saturated fire blankets as appropriate for the specific fire scenario.

Fire fighting methods

: Immediately implement emergency initial measures to extinguish the fire:

- Disconnect electrical power sources related to the fire.
- Prioritize rescuing victims and attempt to stop or isolate any fuel leakage; move fuel containers or adjacent equipment away from the fire if possible.
- Use fire extinguishers, sand, or water-soaked blankets to extinguish small fires.
- Do not use water to extinguish the fire; only use water to cool storage tanks or adjacent equipment.
- Immediately notify the professional fire and rescue services by phone for emergency assistance.

Firefighting protective clothing and equipment

: Fixed firefighting equipment, fire trucks, wheeled dry powder extinguishers (≥ 25 kg), CO₂ cylinders, 6–10 kg dry powder extinguishers, sand, buckets, basins, fire blankets, etc. Use fire-resistant clothing, protective helmets with face shields, gloves, etc.

Special attention notice:

: The diesel oil's vapor is highly flammable, heavier than air and can move far away from the leaked source. If encountered with a fire source may cause fire outbreak to the leaked source.

VI. ACCIDENTAL RELEASE MEASURES

Small spill

- Take all possible measures to stop the source of the spill or leakage. Ventilate the affected area.
- Isolate the spill/leak area. Assign supervisor and warn others about hazardous zone .
- Eliminate all sources of ignition and sparks during spill or leak incidents.
- Use dry sand, rags, or specialized absorbent materials to clean up the spill as quickly as possible, then collect the waste into specialized containers for proper disposal.
- Prevent the diesel oil from leaking to enter drainage systems, canals, or waterways.

Large spill

- Cut off electrical power and cease all operation of transferring diesel oil.
- Isolate the spill/leak area and prepare fire prevention and firefighting plan, measures.
- Implement protective actions for the affected area, prevent the spread of diesel oil, and carry out recovery efforts in accordance with the facility's oil spill response plan.
- Inform the local authorities for assistance to handle the incident .

VII. HANDLING AND STORAGE

Measures and applied conditions while handle chemical

- Open containers slowly to release internal vapor pressure.
- Only transfer diesel oil using specialized containers. Use anti-static grounding systems when loading or unloading diesel oil into transportation vehicles.
- During the loading and unloading process, it is strictly prohibited to: start the vehicle's engine, check the power source, perform maintenance, or clean vehicles.
- No fire, no smoking, and no use of portable electrical or telecommunication devices that are not explosion-proof in hazardous areas.
- Prevent any spillage, leakage, or splashing of diesel oil.
- Do not siphon diesel oil by mouth.
- Always wear appropriate personal protective equipment (PPE) when getting into contact diesel oil. Wash hands and clean up thoroughly after work.
- Store diesel oil only in designated, sealed containers. Store in a dry, well-ventilated, and cool area.
- Prevent diesel oil containers from strong impacts. Keep away from heat sources, sparks, and strong oxidizing agents.
- Install an automatic fire detection and alarm system.
- Comply with the Government's requirements on fire protection and fire fighting, environment protection, oil spill prevention when operating petroleum facilities.
- Fire fighting equipment must be fully equipped following the Government's requirements when handling, transferring, storing the petroleum products .

Measures and applied conditions while stored chemical

VIII. EXPOSURE CONTROL AND PERSONAL PROTECTION

Control parameters

Components	CAS number	Type of exposure	Value (ppm)	Standard
Diesel	68476-34-6	Respiration	100 (TWA)	ACGIH

Personal protection for working

Eye protection : Specialized protection equipment is not required. Goggles are recommended in necessity case.

Body protection : Use protective clothing.

Hand protection : Use protective gloves.

Personal protection for responding incident : The oil spill response team, fire fighting team must be equipped with specialized tool and equipment when approaching and handling the incident..

Sanitation measures : Wash hands with soap and clean up after getting into contact with diesel oil.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Colour	: Pure, clear, light yellow
Odour	: Diesel
Vapour pressure	: Not available
Vapour density relative (Air = 1)	: Not available
Solubility rate in water	: Insoluble
pH	: Not applicable
Density at 15°C (kg/m ³)	: Not available

Boiling point (°C)	: Not applicable
Freezing point/ Melting point (°C)	: ≤ + 3 (winter, spring), ≤ + 12 (summer, autumn)
Flash point (°C)	: ≥ 55
Auto-ignition point (°C)	: Not available
Upper explosion limit	: Not available
Lower explosion limit	: Not available
Kinematic viscosity at 40°C (mm²/s)	: 2,0 – 4,5
Cetane number	: ≥ 46
Boiling point (95% volume, °C)	: ≤ 360
Lubricity (µm)	: Not available
Oxidation stability (mg/100ml)	: ≤ 25

X. STABILITY AND REACTIVITY

Incompatible chemical Stability	: Acids, strong oxidizing agents. : This product is stable under normal temperature, pressure and used conditions that have been recommended.
Dangerous reaction	: Corrosion, explosion, react with ambient environment. Produce carbon monoxide while fired.
Decomposition reaction and its product	: Combustion releases heat and produces CO and CO ₂ gases.

XI. TOXICOLOGICAL INFORMATION

Mouth route	: Not available
Inhalation route	: Not available
Skin route	: Not available
Chronic effects on humans	: May cause cancer depending to exposure concentrations and exposure time.
Other toxicity	: Not available.

XII. ECOLOGICAL INFORMATION

For animal	: Not available
Biodegradable level	: The product is biodegradable in the short term and poses no immediate hazard. However, if biodegradation occurs over an extended period, the toxicity may increase.
Bioaccumulation	: Not available
Mobility in soil	: Not available

XIII. DISPOSAL INFORMATION

- Do not discharge into ponds, lakes, or public drainage systems.
- Disposal must follow standardized procedures and regulations on chemical waste disposal in accordance with environmental protection laws, ensuring safety for both humans and the environment.

XIV. TRANSPORT INFORMATION

Vietnam regulations	: Decree No. 34/2024/NĐ-CP dated March 31 st 2024, of the Government, providing regulations on the List of Dangerous Goods and the transport of dangerous goods by road motor vehicles and inland waterway vessels. - Proper Shipping Name: Diesel fuel (BioDiesel) - UN 1202 - Hazard Class: 3 - Label/Symbol: 3 - Hazard Identification Number: 30 : Decree No. 161/2024/NĐ-CP dated December 18 th 2024,
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of the Government, providing regulations on the List of Dangerous Goods, the transport of dangerous goods, and the procedures for issuance of transport permits and training certificates for drivers or escorts transporting dangerous goods by road.

- Proper Shipping Name: Diesel fuel (BioDiesel)
- UN 1202
- Hazard Class: 3
- Label/Symbol: 3
- Hazard Identification Number: 30
- USA, DOT Shipping Description: UN 1202, Diesel, 3, III.
- IMO/IMDG Shipping Description: UN 1202, Diesel, 3, III.
- IATA/ICAO: UN 1202, Diesel, 3, III.

International regulations

XV. REGULATORY INFORMATION

Vietnam regulations

- Law No.69/2025/QH15 on chemical.
- Law No.84/2015/QH13 on occupational safety and hygiene.
- Law No.72/2020/QH14 on environmental protection.
- Law No.55/2024/QH15 on Fire prevention and fighting, rescue and salvage.

International regulations

: Not available

XVI. OTHER INFORMATION

Date of compilation: June 1st 2026.

Name of organization, individual responsible for drafting:

VIETNAM NATIONAL PETROLEUM GROUP (PETROLIMEX)

DISCLAIMER FOR USER:

- The information and recommendations in this Material Data Safety Sheet are, to the best knowledge and belief, accurate and reliable as of the date issued, and must be used to apply methods preventing risk, accident.
- Dangerous chemical presented in this sheet might have others dangerous properties under the control of the user.
- **Petrolimex shall not be held responsible for any damage resulting from abnormal use of the recommendations presented in this Material Data Safety Sheet.**

